

REMARKS

This paper is submitted in response to the Final Office Action mailed October 15, 2010, and the Advisory action mailed February 4, 2011. This Submission is being concurrently filed with a Request for Continued Examination (RCE) Transmittal under 37 CFR §1.114, along with a one-month Request for Extension of Time under 37 CFR §1.136. This response is thus timely submitted within the three-month shortened statutory period for response, as extended by the one-month extension of time filed herewith. Should any additional fees be required, the Commissioner is authorized to charge Medtronic, Inc. Deposit Account No. 01-2525 and thereafter notify us of the same. Reconsideration of all outstanding grounds of the rejection and allowance of the subject application are believed in order and respectfully requested.

Claims 1, 3, 7, 8, 10, and 13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,947,953 (Ash et al.), in view of U.S. Patent No. 6,246,914 (de la Rama et al.). To the extent this rejection is maintained in view of the amendments to the claims, it is respectfully traversed.

Independent claims 1 and 8 have been amended to define the apertures as each comprising a void through the wall of the body of the cannula. New claims 23 and 24 have been added to further define each of the voids through the wall of the body as comprising a cutout portion of material that provides a permanent opening through the wall to allow for fluid flow, as is described and illustrated throughout the specification and drawings. That is, the valveless apertures of the present claims are areas of the wall of the body provide for an actual “void” or “cutout” through the wall, each of which is a specific section or area of material that is removed or absent from the wall itself and which allows fluid flow through the wall in any configuration of the cannula. These apertures are therefore clearly distinguishable from the slits of the de la Rama reference, which are specifically defined and described as being open in some configurations (i.e., when its shaft is bent) and closed in other configurations (i.e., when its shaft is straight) and do not include permanent voids through the wall of its shaft. Therefore, combining the holes of the device in the Ash et al. reference with the slits of the de la Rama reference will not provide a device as claimed in the presently pending claims.

Although the Examiner indicates in the Advisory Action that “Ash does not appear to provide criticality for a particular aperture shape”, Applicants maintain that there is no suggestion in the Ash reference of a reason to modify the shape of its holes. Instead, the Ash reference provides for a specific arrangement of apertures around the distal end of a catheter to prevent sucking of the catheter and to minimize vibratory movement at the distal end of its catheter, and that there is nothing in this reference or in the knowledge of one skilled in the art that would teach or suggest any reason to depart from the aperture shapes that are shown and described in the Ash reference. Indeed, there is no indication in the Ash reference that any such departure from its illustrated circular apertures and their associated placement would provide for the desired and specifically described functionality of these apertures.

Even if such a suggestion to modify the shape of the holes of the Ash reference were present, however, there would be no motivation for replacing the holes of the Ash reference that are open for fluid flow in all configurations of its catheter with the slits of the de la Rama reference, which are specifically provided to be open in some configurations and closed in other configurations. That is, the de la Rama reference provides for a catheter that is relatively rigid to allow it to handle high torque situations, but that includes slits to allow it to flex when it is desired to maneuver the catheter through certain locations. These slits are not provided to allow for fluid communication between the inner and outer portions of the de la Rama catheters. Rather, in order for the de la Rama catheters to be able to handle an associated torque applied in high torque situations, slits are used (rather than holes or voids) so that the outer catheter surface can behave as if it is solid or free of voids or openings when the catheter is in its unflexed configuration. Thus, one skilled in the art would not modify the holes of the Ash reference through which fluid flows with the slits of the de la Rama reference that are only open when its device is manipulated in a certain way. For at least these reasons, independent claims 1 and 8 and their dependent claims are allowable over the cited references.

With regard to the argument by the Examiner in the Advisory Action that the de la Rama reference includes apertures that “are arranged into a plurality of rows extending

along the longitudinal axis of the lumen”, this position is not supported by the de la Rama reference. In addition, claims 1 and 8 have been amended to more specifically recite that these rows of apertures are spaced from each other around the periphery of the lumen, as is described and illustrated throughout the specification. Although Applicants disagree with the Examiner’s characterization of the slits of de la Rama as being equivalent to the “apertures” claimed in the present claims, even the slits that are disclosed by de la Rama are only shown and described as being either “a continually spiraling slit” or “selected from the group consisting of a perpendicular slit, an angled slit, a curved slit, and the combination thereof”, and there is no disclosure or suggestion of more than one row of such slits being provided along the longitudinal axis of the catheter, and/or that there would be multiple rows of slits spaced from each other around the periphery of its device. That is, the present claims 1 and 8 specifically recite that “the apertures are arranged into a plurality of rows that generally extend along the longitudinal axis of the lumen and are spaced from each other around the periphery of the lumen”, while both of the Ash and de la Rama references fail to teach or suggest such an arrangement of any type of apertures. For at least this additional reason, independent claims 1 and 8 and their respective dependent claims are allowable over the cited references.

New claims 23 and 24, which depend from independent claims 1 and 8, respectively, are allowable at least in that they depend from claims that are believed allowable for the reasons discussed above. These claims are also allowable in that neither of the Ash and de la Rama references provide for voids through the wall of a lumen body that each comprise a cutout portion of material that provides a permanent opening through the wall for fluid flow, where such cutout portions have the features recited in their respective independent claims.

Accordingly, it is submitted that the presently pending claims are currently in condition for allowance, a notice of which is earnestly solicited. If the Examiner finds any issue remaining after consideration of this response, the Examiner is invited to

contact the undersigned, at the Examiner's convenience, in order to expedite any remaining prosecution.

Respectfully Submitted,

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